

**Applicant:** Martin Fangmeier  
**Application No.:** 10/550,320

## **REMARKS**

Claims 1 - 12 are currently pending in this application. By the present amendment, 1, 8 and 11 have been amended. Applicant submits that no new matter has been introduced into the application by these amendments.

### **Telephonic Interview**

The Examiner is thanked for granting a telephonic interview with the Applicant's representative on July 25, 2008. During the interview the hand delivery of a sample of the present invention to the Examiner was discussed.

### **Allowable Subject Matter**

The Examiner is thanked for indicating that claims 8 and 11 contain allowable subject matter. Accordingly, claims 8 and 11 have been rewritten in independent form to include all of the limitations of the base claim and any intervening claim in accordance with the Examiner's suggestion.

### **Claim Rejections - 35 USC §102**

Claims 1, 4, 5, 7, 9, 10 and 12, were rejected under 35 U.S.C. §102(b) as anticipated by DE 1475998. Applicant respectfully traverses this rejection.

Independent claim 1, as amended, recites a backflow preventer, which can be inserted into a gas or liquid line, including a closing body embodied as a hollow body open on a drainage side, which limits a passage channel between the closing body and a central closing body counterpart. The closing body is displaceable, by a flow medium flowing through the passage channel in a flow direction, from a closed position, contacting the closing body counterpart in a sealing manner, into an open position against a restoring force of an elasticity and/or a stability of the closing body. The closing body, in an unstressed closed position, initially contacts only a partial or edge region of the closing body counterpart with a partial region embodied as a sealing lip of the closing body and can additionally be pressed against the closing body counterpart with a partial region of a longitudinal extension thereof. Under a pressure of the fluid flowing against the flow direction, a downstream buffer volume is opened for back flowing fluid. The closing body is located at a fixed position relative to the closing body counterpart in the backflow preventer in the gas or liquid line, and the central closing body counterpart is connected to a through flow plate.

DE '998 provides a backflow preventer in which the closing body is made of an elastic material and, in contrast to the presently claimed invention, is slidably mounted via a slide ring (18) inside a tubular sliding guide (19) so that a counter flow causes the closing body and the slide ring to slide along the guide surface (19)

until the closing body is pressed against an end position in which the closing body contacts the conically shaped surface of the centrally located counterpart. This is shown in Figs. 1 – 3 of DE '998 reproduced below

Fig. 1

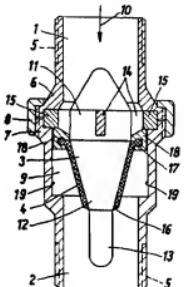


Fig. 2

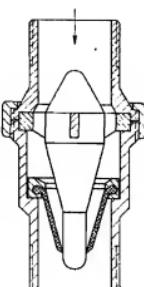
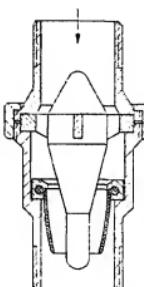


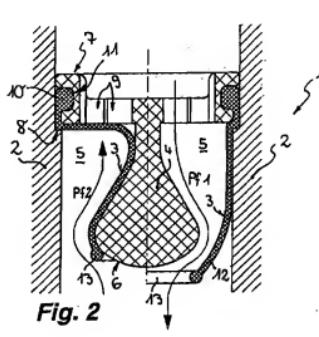
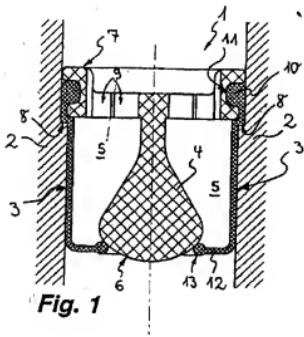
Fig. 3



Due to the sliding movement between the sliding guide surface and the sliding ring (18), there is a potential leakage point at the required sliding fit between the slide ring (18) and the guide surface (19) which, either through a poor fit or through tolerance causing wear over time will result in the arrangement provided in DE '998 leaking.

As amended, claim 1 clearly distinguishes over this reference as it recites that the closing body is non-movably held relative to the closing body counterpart in the backflow preventer in the gas or liquid line, which clearly eliminates this

leakage problem. Additionally, there is no suggestion or disclosure of the central closing body counterpart being connected to a through flow plate in DE '998.



Figures 1 and 2 of the present application are reproduced above. As can be clearly seen in Fig. 2, the closing body (3) is located at a fixed position relative to the closing body counterpart (4) in the backflow preventer. This is in contrast to the sleeve (4) attached to the sliding ring (18) in DE '998 that slides within the backflow preventer. Further, DE' 998 fails to show that the closing body, as shown in Fig. 1, in an unstressed closed position, initially contacts only a partial or edge region of the closing body counterpart as is claimed.

Accordingly, withdrawal of the Section 102(b) rejection of claim 1 is respectfully requested.

Claims 4, 5, 7, 9, 10 and 12 depend directly or indirectly from claim 1 and are similarly patentable.

Accordingly, withdrawal of the Section 102(b) rejection of these claims is respectfully requested.

**Claim Rejections - 35 USC §103**

Claim 6 was rejected as obvious in view of DE '998. Applicant respectfully traverses this rejection.

Claim 6 depends from claim 1 and should be similarly patentable over this reference for the reasons noted above in connection with claim 1.

Claims 2 and 3 were also rejected under 35 U.S.C. §103 as unpatentable over the combination of DE '998 in view of U.S. 2,938,532 to Fraser. Applicant respectfully traverses this rejection.

Claims 2 and 3 depend directly or indirectly from claim 1 and should be similarly patentable for the reasons noted above in connection with claim 1. Further, Fraser relates to a vacuum breaker having an open home or unstressed position. Fraser does not address the deficiencies of DE '998 in connection with claim 1 and further does not provide a backflow preventer having a closing body that, in an unstressed closed position, initially contacts a partial or edge region of the closing body counterpart. As clearly illustrated in Figure 4 and discussed in the associated text, the flexible valve member (27) of Fraser is open in its unstressed position. See

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Fraser column 2, lines 33-40. Additionally, it is clear that the referenced portion (31) of Fraser cannot meet the limitation of claim 2 which requires a free edge region of the sealing lip which contacts the closing body counterpart to be provided with the edge reinforcement to compensate expansion of an edge region circumference. The reinforcement (31) of Fraser does not contact the closing body counterpart. See in particular Figures 4-6. Accordingly, withdrawal of the Section 103 rejection of claims 2 and 3 is respectfully requested.

**CONCLUSION**

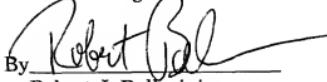
If the Examiner believes that any additional minor formal matters need to be addressed in order to place the present application in condition for allowance, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

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In view of the foregoing Amendments and Remarks, Applicant respectfully submits that the present application, including claims 1-12, is in condition for allowance, and a Notice to that effect is respectfully requested.

Respectfully submitted,

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